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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,296	07/30/2003	John Graeme Pepin	EL0475 US CIP	9720

23906 7590 09/21/2005

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WILMINGTON, DE 19805

EXAMINER
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SAVAGE, JASON L

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/630,296

Applicant(s)

PEPIN, JOHN GRAEME

Examiner

Jason L. Savage

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Topfer et al. (Translated Article: Preparation and Properties of Nd-Fe-B Thick Layers for Magnetic Standards).

Topfer teaches a composition for forming a magnetic thick film comprising magnetic particles of NdFeB dispersed in an organic medium containing a polymer epoxy resin and solvent (p. 3, "Screen Printing").

Regarding the limitation that the polymer be selected from polyurethane or phenoxy, although Topfer only recites the use of epoxy resin as the polymer in the magnetic composition, it would have been within the purview of one of ordinary skill in the art to have recognized that other polymer materials could be suitable for in the magnetic composition of Topfer with a reasonable expectation of success. The substitution of a phenoxy polymer for the epoxy of Topfer would have been an obvious choice given that both are similar chemically.

Regarding the limitation in claim 4, Topfer teaches that the magnetic particles may be contained in the composition in an amount of 65% by weight (p. 4, "Results and Discussion").

Regarding the limitation in claim 5, although Topfer does not specifically recite the desired organic medium content in the composition, given the teaching that the magnetic particles are desirably contained in an amount of 65% by weight above, the organic medium content would likely be 35% by weight or below in the preferred embodiment taught by Topfer.

Regarding claims 6, 8-9 and 13, Topfer teaches that the composition may be applied to a substrate by screen printing (p. 3, top) which would meet the claim limitation of having a consistency suitable for screen printing and applying the composition to a substrate by a screen printing disposing means.

Regarding claim 7, Topfer teaches the composition is processed to remove the solvent.

Regarding claim 11, while Topfer teaches that a formed film is subjected to magnetization, Topfer does not teach that particles in the film forming composition (emphasis added) has been treated to orient the particles in any manner. As such, the film forming composition of Topfer would meet the limitation of being isotropic. Furthermore, regarding the limitation that the powders are selected from atomized or dry-milled powders, the claims are drawn to a product, not the method of making. Absent a teaching of the criticality or evidence showing how the claimed methods of forming the particles produce a powder that is materially distinct from the powder of the prior art, it does not provide a patentable distinction. Also, it would have been obvious to one of ordinary skill in the art to have selected powders formed from any known method including dry-milling with a reasonable expectation of success.

Claims 2-3, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Topfer et al. (Translated Article: Preparation and Properties of Nd-Fe-B Thick Layers for Magnetic Standards) as evidenced by ISAMM'02 (Program of the ISAMM'02 International Symposium on Advanced Magnetic Materials) and Benz et al. (Article: High-Energy-Product (Pr-Nd-Ce)FeB Magnets Produced Directly from Mixed-Rare-Earth-Oxide Feed for MRI Medical Imaging Applications).

Topfer teaches what is set forth above but is silent to the NdFeB magnetic material comprising other metals such as those claimed. However, it would have been within the purview of one of ordinary skill in the art to have recognized that additives of any metal that known to be suitable for use with NdFeB system materials could be employed in the magnetic composition of Topfer with a reasonable expectation of success. As evidenced by ISAMM'02 on pages 2 and 4, transition metals such as Co and Cr are known to be suitable for use with NdFeB system materials and as evidenced by Benz, it is known that Pr is suitable for use with NdFeB system materials and as such, the use of the claimed elements in the NdFeB system of Topfer would have been obvious. Furthermore, absent a teaching of the criticality of the additive metals, it would not provide a patentable distinction over the prior art.

It is well settled that the test of obviousness is not whether the features of one reference can be bodily incorporated into the structure of another and proper inquiry should not be limited to the specific structure shown by the references, but should be into the concepts fairly contained therein, and the overriding question to be determined

Art Unit: 1775

is whether those concepts would suggest to one of ordinary skill in the art the modifications called for by the claims, *In re Van Beckum*, 169 USPQ 47 (CCPA 1971), *In re Bozek*, 163 USPQ 545 (CCPA 1969); *In re Richman*, 165 USPQ 509 (CCPA 1970); *In re Henley*, 112 USPQ 56 (CCPA 1956); *In re Sneed*, 218 USPQ 385 (Fed. Cir. 1983).

In response to the issue whether the reference is nonanalogous art, it has been held that the determination that a reference is from a nonanalogous art is twofold. First, one decides if the reference is within the field of the inventor's endeavor. If it is not, one proceeds to determine whether the reference is reasonably pertinent to the particular problem with which the inventor was involved, *In re Wood*, 202 USPQ 171, 174. In the instant case, all of the cited references of Topfer, ISAMM'02 and Benz are and Barrow are generally drawn to magnetic materials of the Nd-Fe-B system.

### ***Response to Arguments***

Applicant's arguments filed 9-8-05 have been fully considered but they are not persuasive.

Applicant argues that while the cited references disclose that the magnetic powder may be selected from powders in the Nd-Fe-B and other systems, the magnetic particles in the cited references differ from the magnetic particles of the present invention. Applicant points to the teaching in the specification on page 9, line 35 – page 10, line 1 that “[the film] as printed can be isotropic in nature such that the direction of a subsequently applied magnetic field can be done in any direction versus the shape and

Art Unit: 1775

thickness of the film. This property of magnetic isotropy is aided when the Neo powders are specifically used".

First, this argument is not commensurate in scope with the majority of the claims as they have no limitations drawn to magnetic isotropy. Second, the cited teaching is drawn to the film, not the film forming composition (emphasis added). As recited above, the particles in the film forming composition of Topfer would appear to be as isotropic as the composition claimed by Applicant. Finally, other than making the assertion that the particles of the cited references are different from the particles in the inventive composition, the Examiner is unsure of Applicant's basis for asserting the particles are not the same. Given that the only limitation in the independent claims directed to the particles are their composition and that Topfer teaches the same Nd-Fe-B particle compositions, the particles are considered to be the same until Applicant can provide evidence to the contrary. Simply making the assertion they are not the same is not considered proof.

Applicant further argues that the powders of the present invention may be formed by atomization or a dry-milling process which gives rise to a polymer thick film as printed which is isotropic in nature. As was set forth in the rejections above, the claims are drawn to the article, not the method of making. Applicant has not provided any evidence to support the assertion of how the particles of the cited prior art and that of the present invention differ.

### ***Conclusion***

Art Unit: 1775

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason L Savage whose telephone number is 571-272-1542. The examiner can normally be reached on M-F 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

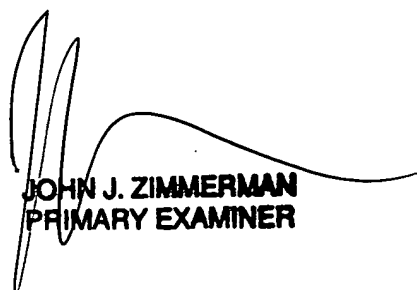


Art Unit: 1775

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason Savage  
9-13-05



**JOHN J. ZIMMERMAN**  
**PRIMARY EXAMINER**